

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-38 (canceled).

39. (new): An organic light emitting device comprising an anode, a cathode and an emissive layer, wherein the emissive layer is located between the anode and the cathode and the emissive layer comprises an electron transporting host material doped with a phosphorescent dopant material, wherein the phosphorescent dopant material has a HOMO energy less than the ionization potential of the electron transporting host material, wherein the electron transporting host material has a lowest triplet excited state having a triplet state energy, and wherein the phosphorescent dopant material has a triplet excited state with a triplet state energy that is less than the triplet state energy of the lowest triplet excited state of the electron transporting host material.

40. (new): The organic light emitting device of claim 39 wherein the phosphorescent dopant material has a LUMO energy level lower than a LUMO energy level of the electron transporting host material.

41. (new): The organic light emitting device of claim 39 wherein the electron transporting host material comprises an aryl-substituted oxadiazole.

42. (new): The organic light emitting device of claim 41 wherein the aryl-substituted oxadiazole

comprises 1,3-bis (N,N-t-butyl-phenyl)-1,3,4-oxadiazole.

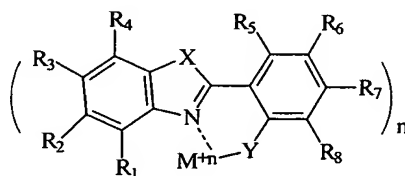
43. (new): The organic light emitting device of claim 39 wherein the electron transporting host material comprises an aryl-substituted triazole.

44. (new): The organic light emitting device of claim 43 wherein the aryl-substituted triazole comprises 3-phenyl-4-(1'-naphthyl)-5-phenyl-1,2,4-triazole.

45. (new): The organic light emitting device of claim 39 wherein the electron transporting host material comprises an aryl-substituted phenanthroline.

46. (new): The organic light emitting device of claim 45 wherein the aryl-substituted phenanthroline comprises 2,9-dimethyl-4,7-diphenyl-1,10-phenanthroline.

47. (new): The organic light emitting device of claim 39 wherein the electron transporting host material comprises a benzoxazole or benzothiazole compound having the chemical structure:



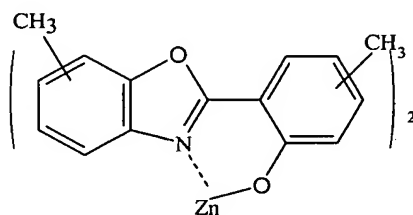
where X and Y are independently O, S;

M represents a metal;

n is a integer from 1 to 3; and

R₁ to R₈ are, independently, a hydrogen atom, an aryl group or an alkyl group.

48. (new): The organic light emitting device of claim 39 wherein the electron transporting material comprises a zinc benzoxazole compound having the chemical structure:



49. (new): The organic light emitting device of claim 39 wherein the phosphorescent dopant material comprises fac-tris (2-phenylpyridine)-iridium.

50. (new): An organic light emitting device comprising:

a substrate;

an anode layer over said substrate;

a hole transporting layer over said anode layer;

a first electron transporting layer over said hole transporting layer, wherein

said first electron transporting layer comprises an electron transporting host material

doped with a phosphorescent dopant material, wherein the phosphorescent dopant material has a HOMO energy less than the ionization potential of the electron transporting host material, wherein the first electron transporting host material has a lowest triplet excited state having a triplet state energy, and wherein the phosphorescent dopant material has a triplet excited state with a triplet state energy that is less than the triplet state energy of the lowest triplet excited state of the first electron transporting host material;

a second electron transporting layer over said first electron transporting layer;

and

a cathode layer over said second electron transporting layer.

51. (new): The organic light emitting device of claim 50 wherein the phosphorescent dopant material has a LUMO energy level lower than a LUMO energy level of the electron transporting host material.

52. (new): The organic light emitting device of claim 50 wherein the electron transporting host material comprises an aryl-substituted oxadiazole.

53. (new): The organic light emitting device of claim 52 wherein the aryl-substituted oxadiazole comprises 1,3-bis (N,N-t-butyl-phenyl)-1,3,4-oxadiazole.

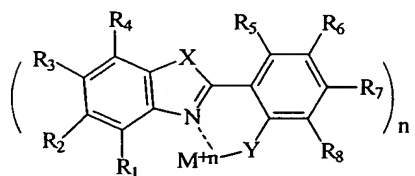
54. (new): The organic light emitting device of claim 50 wherein the electron transporting host material comprises an aryl-substituted triazole.

55. (new): The organic light emitting device of claim 54 wherein the aryl-substituted triazole comprises 3-phenyl-4-(1'-naphthyl)-5-phenyl-1,2,4-triazole.

56. (new): The organic light emitting device of claim 50 wherein the electron transporting host material comprises an aryl-substituted phenanthroline.

57.(new): The organic light emitting device of claim 56 wherein the aryl-substituted phenanthroline comprises 2,9-dimethyl-4,7-diphenyl-1,10-phenanthroline.

58. (new): The organic light emitting device of claim 50 wherein the electron transporting host material comprises a benzoxazole or benzothiazole compound having the chemical structure:



where X and Y are independently O, S;

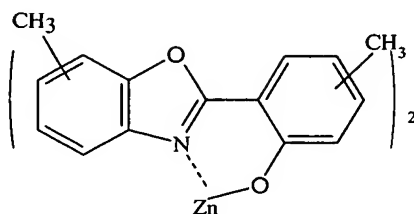
M represents a metal;

n is an integer from 1 to 3; and

R₁ to R₈ are, independently, a hydrogen atom, an aryl group or an alkyl group.

59. (new): The organic light emitting device of claim 50 wherein the electron transporting material

comprises a zinc benzoxazole compound having the chemical structure:



60. (new): The organic light emitting device of claim 50 wherein the phosphorescent dopant material comprises fac-tris (2-phenylpyridine)-iridium.